ApXML Structure

Format

> The ApXML file should start with a processing instruction specifying the version

> The ApXML file should contain a comment specifying the origin of the file.

> ApXML is case-sensitive. By convention all ActiveProject v2000-defined element and attribute names will be uppercase. All ApXML element and attribute name values and enumerated types are defined for C++ in the file *FtcXMLInclude.h.*

> Simple values will be defined as attributes of an element. Complex values (structures) will be defined as sub-elements

> The first element (document element) in the ApXML file must be either a *PROJECT, FACE* or *FACETARGET.*

    o **Creating a new project in a project area**. The first element must be a *PROJECT* element. At least one *FACE* sub-element is required. The target object should be NULL when calling *IAuthoringEngine::NewFrom.*

    o **Building an assembly in an existing project**. The first element must be a *FACE* element. The target object should be a reference to the container face when calling *IAuthoringEngine::NewFrom.*

    o **Building a flat assembly in an existing project**. The first element must be a *FACETARGET* element. The target object should be a reference to the existing face that will become the assembly root face when calling *IAuthoringEngine::NewFrom.*

    o **Adding just users to a project area**. The first element must be a *PROJECT* element. All sub-elements should be *USER* elements. If a *FACE* sub-element is defined, a project will be created as well as adding users. The target object should be NULL when calling *IAuthoringEngine::NewFrom.*

- Definitions of color are RGB values.

- There may be one *PROCESSSUPPORT* element as a child of the first element. This element includes any attributes related to processing the ApXML file. Currently, there is only one attribute defined, MESSAGE, which defines the message displayed with the progress bar during import.

- Any assembly that supports the Republish operation must include a custom property "XMLRef" for each object that may be republished. The property must define a unique value for each object and generate the same value for the same object for each republish. This value identifies the object for updating as opposed to adding or deleting.

    o **Note.** During a republish operation objects identified as existing through the "XMLRef" property are updated with values defined in the ApXML document. All other attributes of the objects remain unchanged.

- Inter-object referencing in an ApXML document is supported by the XMLID attribute of any element. When generating an ApXML document each element that may be referenced must define the XMLID attribute and assign it a value that is unique within the ApXML document.

    o The *RERERENCETORESOLVE* element must be child of the first element. Each *RERERENCETORESOLVE* element defines an XMLID value that must be resolved to an object handle on the import to ActiveProject. Requiring the ApXML document to specifically identify inter-object references limits potential scalability problems when importing very large ApXML documents by not maintaining an id list for every ApXML element with an XMLID.

- **Legacy attributes** are reserved attributes that should not be used in normal ApXML definitions. They are reserved for recreating existing projects and project data (for example the translation of v5.0.2 projects). Their use circumvents the standard API operations for setting user and date stamps for transactions.

> An *INFOITEM* sub-element of type FD_litHistory defined as a child of an *INFOITEM* element will be added as a history version of the parent info item. For legacy use only. Not to be used in normal operations.

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APXML ELEMENT TAGS

ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS
ANNOTATIONGRAPHIC	TYPE	POLYPOINT +
	FD_LGTPUnknown = 0	
	FD_LGTPText = 1	
	FD_LGTPLine = 2	
	FD_LGTPEllipse = 3	
	FD_LGTPRectangle = 4	
	FD_LGTPPolygon = 5	
	FD_LGTPFile = 6	
	LINEPATTERN	
	FD_LGLPNoLine = 0	
	FD_LGLPSolid = 1	
	FD_LGLPDash = 2	
	FD_LGLPDot = 3	
	FD_LGLPDashDot = 4	
	FD_LGLPDashDotDot = 5	
	LINEWIDTH	
	LINEARROWBEGIN	
	FD_LGNo = 0	
	FD_LGYes = 1	
	LINEARROWEND	
	FD_LGNo = 0	
	FD_LGYes = 1	
	LINECOLOR	
	FILLPATTERN	
	FD_LGFPNoFill = 0,	
	FD_LGFPSolid = 1,	
	FD_LGFPHorizontalLine = 2,	
	FD_LGFPVerticalLine = 3,	
	FD_LGFPDiagonalDownward = 4,	
	FD_LGFPDiagonalUpward = 5,	
	FD_LGFPCrossHatch = 6,	
	FD_LGFPDiagonalCrossHatch = 7	
	FILLFOREGROUNDCOLOR	
	FILLBACKGROUNDCOLOR	
	ROW (Y)	
	COLUMN (X)	
	WIDTH	

ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS
	HEIGHT	
	TEXT (for text type)	
	JUSTIFICATION	
	LEFT = 0 (default)	
	RIGHT = 1	
	CENTER = 2	
	FONT	
	SIZE	
	FONTCOLOR	
	STYLE	
	FD_LGBold = 1	
	FD_LGItalic = 2	
	FD_LGUnderline = 4	
	FILENAME (for type File)	
	ORIGINALREF (for type File)	
	CURRENTDIR (where master file and all dependencies currently stored, may be relative)	
	ZINDEX (optional, z-order index relative to other graphics, ANNOTATIONGRAPHIC and LOOKGRAPHIC, of the container FACE)	

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ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS
ARTICLE	XMLID (unique reference in XML file) NAME DESCRIPTION EDITID POSITION REFERENCE (path for graphics file) URL (associated url for article)	
ATTRIBUTE	NAME	VALUE
AUTHOR	NAME	
CCUSER	USER DATE (as Variant Time)	

COMMENT	XMLID (unique reference in XML file)
	
	NAME
	
	DESCRIPTION
	
	TYPE
	   FD_CtUnknown = 0
	   FD_CtStandard = 1
	   FD_CtMarkup = 2
	URGENT
	   FD_LGNo = 0
	   FD_LGYes = 1
	REFERENCE (optional file path)
	== Legacy Attributes ========
	DATE (as Variant Time)
	USER	

CROSSREFERENCE	XMLID	

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ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS

CUSTOMPROP	XMLID (unique reference in XML file)
	
	NAME
	
	DESCRIPTION
	
	VALUE
	
	TYPE
	  CP_Empty = 1
	  CP_Long = 2
	  CP_Double = 3
	  CP_Text = 4
	  CP_Handle = 5
	  CP_Date = 6
	  CP_Currency = 7
	  CP_List = 9
	  CP_Bool = 10
		CUSTOMPROP +

DEPENDENCY	FILENAME (original path)	

FACE	XMLID (unique reference in XML file)
	
	NAME
	
	DESCRIPTION
	
	NAVIGATIONMODE
	  FD_NmNone = 0
	  FD_NmSelect = 1
	  FD_NmContents = 2
	  FD_NmLaunch = 4
	
	SPECIALTYPE
	  FD_FtNone = 0
	  FD_FtStandard = 1
	  FD_FtPublishedhierarchyContainer = 2
	  FD_FtPublishedHierarchyRoot = 4
	
	ASPECTTYPE
	  FD_AtStandard = 1
	  FD_AtNavigateToUrl = 2
	  FD_AtTComm = 4
	  FD_AtNews = 8
	  FD_AtCrossRefs = 16
	  FD_AtTeam = 32
	
	NAMEASPECTSPECIFIC
	
	BACKGROUNDCOLOR (optional)
		FACE +
		
		LOOKGRAPHIC
		
		ANNOTATIONGRAPHIC +
		
		CUSTOMPROP +
		
		INFOITEM +
		
		COMMENT +
		
		ISSUE +
		
		TCOMMTYPE
		
		SUBSCRIBER +
		
		PUBLISHER + (valid only for root face)
		
		REVIEWER + (valid only for root face)
		
		VIEWER + (valid only for root face)
		
		XMLIDTORESOLVE + (valid only for face as root element)
		
		PROCESSSUPPORT (valid only for face as root element)

ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS
FACETARGET	XMLID (unique reference in XML file) BACKGROUNDCOLOR (optional)	FACE + ANNOTATIONGRAPHIC + CUSTOMPROP + INFOITEM + COMMENT + PROCESSSUPPORT (valid only for face as root element)
FIELDVALUE	VALUE	
HOMEPAGE	GRAPHIC (file path) COMPANYURL COMPANYLABEL COMPANYGRAPHIC (file path) EMAILADDRESS EMAILLABEL	

ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS
INFOITEM	XMLID (unique reference in XML file)	CUSTOMPROP +
	NAME	DEPENDENCY +
	DESCRIPTION	COMMENT +
	DOCTYPE	INFOITEM +
	FD_DtUnknownModule = 0	
	FD_DtUrlService = 1	
	FD_DtFileService = 2	
	FD_DtCadService = 3	
	FD_DtCgiService = 4	
	FD_DtWrkPkgService = 5	
	DOCSUBTYPE	
	TYPE	
	FD_IitAll = 0	
	FD_IitNormal = 1	
	FD_IitHistory = 2	
	FD_IitGraphic = 4	
	FD_IitSubmitAttachment = 8	
	FD_IitResponseAttachment = 16	
	FD_IitCommentAttachment = 32	
	FD_IitTemporary =- 64	
	FD_IitArticleRefUrl = 128	
	PROCESSTYPE	
	FD_MtInfoItemProcessor = 8193	
	FD_MtHierarchyProcessor = 8194	
	FD_MtFlatHierarchyProcessor = 8195	
	FD_MtMarkupProcessor = 8196	
	FD_MtScheduleProcessor = 8197	
	SOURCEREF	
	CURRENTDIR (current directory for file, usually relative)	
	SHARE	
	MASTERFILENAME	
	== Legacy Attributes ========	
	OWNER	
	PUBLISHER	
	DATE (as Variant Time)	
	PUBLICATIONNUMBER	

ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS

ISSUE	XMLID (unique reference in XML file)
	
	NAME
	
	EDITOR
	
	PUBLISHED
	   FD_LGNo = 0
	   FD_LGYes = 1
	== Legacy Attributes =========
	PUBLISHER
	
	DATE (as Variant Time)
		ARTICLE +

LABEL	HIDDEN
	   FD_LGNo = 0
	   FD_LGYes = 1
	TEXT
	
	ROW (Y)
	
	COLUMN (X)
	
	HEIGHT
	
	WIDTH
	
	FONT
	
	FONTCOLOR
	
	STYLE
	   FD_LGBold = 1
	   FD_LGItalic = 2
	   FD_LGUnderline = 4
	SIZE
	
	LINEPATTERN
	   FD_LGLPNoLine = 0
	   FD_LGLPSolid = 1
	   FD_LGLPDash = 2
	   FD_LGLPDot = 3
	   FD_LGLPDashDot = 4
	   FD_LGLPDashDotDot = 5
	LINEWIDTH
	
	LINECOLOR
	
	FILLPATTERN
	   FD_LGFPNoFill = 0,
	   FD_LGFPSolid = 1,
	   FD_LGFPHorizontalLine = 2,
	   FD_LGFPVerticalLine = 3,	

ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS
	FD_LGFPDiagonalDownward = 4,	
	FD_LGFPDiagonalUpward = 5,	
	FD_LGFPCrossHatch = 6,	
	FD_LGFPDiagonalCrossHatch = 7	
	FILLFOREGROUNDCOLOR	
	FILLBACKGROUNDCOLOR	
	JUSTIFICATION	
	FD_LGLeft = 0 (default)	
	FD_LGRight = 1	
	FD_LGCenter = 2	
	AUTOPOSITION	
	FD_LGAPNone = 0 (default)	
	FD_LGAPCenter = 1	
	FD_LGAPLeft = 2	
	FD_LGAPRight = 3	
	FD_LGAPTop = 4	
	FD_LGAPBottom = 5	

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ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS
LOOKGRAPHIC	TYPE	LABEL
	FD_LGTPUnknown = 0	DEPENDENCY +
	FD_LGTPEllipse = 3	POLYPOINT +
	FD_LGTPRectangle = 4	PLACEICON
	FD_LGTPPolygon = 5	
	FD_LGTPFile = 6	
	LINEPATTERN	
	FD_LGLPNoLine = 0	
	FD_LGLPSolid = 1	
	FD_LGLPDash = 2	
	FD_LGLPDot = 3	
	FD_LGLPDashDot = 4	
	FD_LGLPDashDotDot = 5	
	LINEWIDTH	
	LINEARROWBEGIN	
	FD_LGNo = 0	
	FD_LGYes = 1	
	LINEARROWEND	
	FD_LGNo = 0	
	FD_LGYes = 1	
	LINECOLOR	
	FILLPATTERN	
	FD_LGFPNoFill = 0,	
	FD_LGFPSolid = 1,	
	FD_LGFPHorizontalLine = 2,	
	FD_LGFPVerticalLine = 3,	
	FD_LGFPDiagonalDownward = 4,	
	FD_LGFPDiagonalUpward = 5,	
	FD_LGFPCrossHatch = 6,	
	FD_LGFPDiagonalCrossHatch = 7	
	FILLFOREGROUNDCOLOR	
	FILLBACKGROUNDCOLOR	
	ROW (Y)	
	COLUMN (X)	
	WIDTH	
	HEIGHT	
	SHOWNAVIGATETOCONTENTS	
	FD_LGSNone = 0,	
	FD_LGSRightBottom = 1,	
	FD_LGSBottomCenter = 2,	

ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS
	FD_LGSBottomLeft = 3,	
	FD_LGSLeftCenter = 4,	
	FD_LGSLeftTop = 5,	
	FD_LGSTopCenter = 6,	
	FD_LGSTopRight = 7,	
	FD_LGSRightCenter = 8,	
	FD_LGSCenter = 9,	
	FD_LGSManualPlace = 10 (use PLACEICON)	
	FILENAME (for type File)	
	ORIGINALREF (for type File)	
	CURRENTDIR (where master file and all dependencies currently stored, may be relative)	
	ZINDEX (optional, z-order index relative to other graphics, ANNOTATIONGRAPHIC and LOOKGRAPHIC, of the container FACE)	

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ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS
PARAMETER	XMLID (unique reference in XML file) NAME DESCRIPTION PARAMETERTYPE	VALUE ATTRIBUTE +
PLACEICON	XOFFSET YOFFSET ICONNAME (MAGNIFYINGGLASS, PLUSSIGN, FOLDER) or ICONFILENAME	
POLYPOINT	ROW (Y) COLUMN (X)	
PROCESSSUPPORT	MESSAGE	

PROJECT	XMLID (unique reference in XML file)
	
	NAME
	
	DESCRIPTION
	
	INFOITEMPREVIEWWIDTH
	
	INFOITEMPREVIEWHEIGHT
	
	INFOITEMVERSIONSLIMIT
	
	INCLUDEWEBCONFERENCING
	
	    FD_LGNo = 0
	
	    FD_LGYes = 1
		FACE +
		
		CUSTOMPROP +
		
		INFOITEM +
		
		USER +
		
		AUTHOR +
		
		XMLIDTORESOLVE +
		
		HOMEPAGE
		
		PROCESSSUPPORT

PUBLISHER	NAME	
XMLIDTORESOLVE	XMLID	
REVIEWER	NAME	
SUBSCRIBER	NAME	

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ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS

TCOMM	XMLID (unique reference in XML file)
	NAME
	DESCRIPTION
	FROM
	TO
	ISNEW
	  FD_LGNo = 0
	  FD_LGYes = 1
	ISCOMPLETE
	  FD_LGNo = 0
	  FD_LGYes = 1
	REQUIREDDATE (as Variant Time)
	OBJECT (XMLID)
	OBJECTREFERENCE
	DESCRIPTIONREFERENCE
	== Legacy Attributes =========
	SUBMITDATE (as Variant Time)
	RESPONSEDATE (as Variant Time)
	RESPONSE
	RESPONSEREFERENCE
		FIELDVALUE +
		TRANSFERUSER +
		CCUSER +

TCOMMFIELD	NAME
	FIELDREQUIRED
	  FD_LGNo = 0
	  FD_LGYes = 1	

TCOMMTYPE	XMLID (unique reference in XML file) NAME DESCRIPTION LONGNAME CUSTOMDATA (BSTR) RECIPIENTNAME	TCOMMFIELD+ TCOMM +
TRANSFERUSER	== Legacy Attributes ========= USER DATE (as Variant Time)	

ELEMENT TAG	ATTRIBUTES	CHILD ELEMENT TAGS
USER	XMLID (unique reference in XML file)	USERNAME +
	NAME	
	PASSWORD	
	EMAIL	
	FIRSTNAME	
	LASTNAME	
	TELEPHONE	
	TITLE	
	COMPANY	
	URL	
	ADDRESS	
	CITY	
	STATE	
	ZIP	
	PAGER	
	COUNTRY	
	EXT	
	FAX	
	MOBILE	
	GROUP (non-zero plus USERNAME indicates a group)	
USERNAME	NAME	
VALUE	TYPE	
	CP_Empty = 1	
	CP_Long = 2	
	CP_Double = 3	
	CP_Text = 4	
	CP_Handle = 5	
	CP_Date = 6	
	CP_Currency = 7	
	CP_List = 9	
	CP_Bool = 10	
	VALUE	
VIEWER	NAME	

NEW PROJECT

```xml
<?xml version="1.0"?>
<!--Project export from ActiveProject Server Version 5.0-->
<PROJECT XMLID="firefox:#1" NAME="firefox" INFOITEMPREVIEWWIDTH="275"
INFOITEMPREVIEWHEIGHT="0" INFOITEMVERSIONSLIMIT="5" INCLUDEWEBCONFERENCING="0"
DESCRIPTION="FireFox Project Web Site">
        <USER XMLID="FM_User:pames" NAME="pames" PASSWORD="pames"
        EMAIL="pames@frametech.com" FIRSTNAME="Paul" LASTNAME="Ames"
        TELEPHONE="603 448-3009" TITLE="Lead Slug" COMPANY="Framework
        Technologies" URL="http://www.frametech.com" ADDRESS="85 Mechanic Street"
        CITY="Lebanon" STATE="NH" ZIP="03766" GROUP="0"/>

        <USER XMLID="FM_User:btrexler" NAME="btrexler" PASSWORD="b%trexler%"
        EMAIL="btrexler@frametech.com" FIRSTNAME="Bill" LASTNAME="Trexler"
        TELEPHONE="603 448-3009" TITLE="Account Manager" COMPANY="Framework
        Technologies" URL="http://www.frametech.com" ADDRESS="85 Mechanic Street"
        CITY="Lebanon" STATE="NH" ZIP="03766" GROUP="0"/>

        <USER XMLID="FM_User:cdavies" NAME="cdavies" PASSWORD="$c$davies"
        EMAIL="cdavies@frametech.com" FIRSTNAME="Chris" LASTNAME="Davies"
        TELEPHONE="603 448-3009" TITLE="Sales Engineer" COMPANY="Framework
        Technologies" URL="http://www.frametech.com" ADDRESS="85 Mechanic Street"
        CITY="Lebanon" STATE="NH" ZIP="03766" GROUP="0"/>

        <HOMEPAGE COMPANYURL="http://www.frametech.com" COMPANYLABEL="Framework
        Technologies" EMAILADDRESS="mailto:cdavies@frametech.com"
        EMAILLABEL="Email to Project Manager"/>

        <AUTHOR NAME="cdavies"/>

        <AUTHOR NAME="btrexler"/>

        <FACE XMLID="firefox:#3047" NAME="News" DESCRIPTION="" NAVIGATIONMODE="4"
        SPECIALTYPE="1" ASPECTTYPE="8" BACKGROUNDCOLOR="16777215">

                <PUBLISHER NAME="cdavies"/>

                <VIEWER NAME="pames"/>

                <INFOITEM XMLID="firefox:#3050" NAME="News Service" DESCRIPTION=""
                SOURCEREF="http:commonservices/newsservice/news.asp?Project=firefo
                x&amp;Aspect=News" DOCTYPE="1" TYPE="1" OWNER="cdavies"
                PUBLISHER="cdavies" DATE="25568.7916666667"
                PUBLICATIONNUMBER="0"/>

                <ISSUE XMLID="FTC500" NAME="cdavies" EDITOR=""/>

        </FACE>

        <FACE XMLID="firefox:#5" NAME="Overview" DESCRIPTION=""
        NAVIGATIONMODE="1" SPECIALTYPE="1" ASPECTTYPE="1"
        BACKGROUNDCOLOR="16777215">

                <PUBLISHER NAME="btrexler"/>
                <REVIEWER NAME="cdavies"/>

                <ANNOTATIONGRAPHIC ZINDEX="0" FILENAME="OVER.JPG"
                ORIGINALREF="D:\PROGRAM FILES\FTC\ACTIVEPROJECT
```

```
SERVER\UTILITY\FIREFOX\PROJECT\DOCS\OVER.JPG" CURRENTDIR="docs"
TYPE="6" FILLPATTERN="1" FILLFOREGROUNDCOLOR="0"
FILLBACKGROUNDCOLOR="376926741" WIDTH="457" HEIGHT="319" ROW="0"
COLUMN="0"/>

        <FACE XMLID="firefox:#150" NAME="Goals" DESCRIPTION=""
        NAVIGATIONMODE="1" SPECIALTYPE="1" ASPECTTYPE="1"
        BACKGROUNDCOLOR="16777215">

        <LOOKGRAPHIC ZINDEX="2" TYPE="6" CURRENTDIR="\_APIgraphic"
        ORIGINALREF="d:\Program Files\FTC\ActiveProject
        Server\Utility\firefox\project\XMLEXPORT\_APIgraphic\#150.b
        mp" FILENAME="#150.bmp" WIDTH="127" HEIGHT="36" ROW="41"
        COLUMN="404">

                <LABEL TEXT="Goals" FONT="Arial" SIZE="9"
                FONTCOLOR="16777215" STYLE="1" LINEPATTERN="0"
                FILLPATTERN="0" WIDTH="121" HEIGHT="22" ROW="44"
                COLUMN="405"/>

        </LOOKGRAPHIC>

        <SUBSCRIBER NAME="btrexler"/>

        <INFOITEM XMLID="firefox:#3486" NAME="additional FAQ's"
        DESCRIPTION="" SOURCEREF="D:\FJB\FIREFOX\DOCS\ADDITIONAL
        FAQ'S.DOC" CURRENTDIR="docs" MASTERFILENAME="ADDITIONAL
        FAQ'S.DOC" DOCTYPE="2" TYPE="1" OWNER="Javier Betancourt"
        PUBLISHER="Javier Betancourt" DATE="-1.#QNAN"
        PUBLICATIONNUMBER="1"/>

</FACE>

<FACE XMLID="firefox:#158" NAME="Teams" DESCRIPTION=""
NAVIGATIONMODE="1" SPECIALTYPE="1" ASPECTTYPE="1"
BACKGROUNDCOLOR="16777215">

        <LOOKGRAPHIC ZINDEX="3" TYPE="6" CURRENTDIR="\_APIgraphic"
        ORIGINALREF="d:\Program Files\FTC\ActiveProject
        Server\Utility\firefox\project\XMLEXPORT\_APIgraphic\#158.b
        mp" FILENAME="#158.bmp" WIDTH="127" HEIGHT="36" ROW="112"
        COLUMN="405">

                <LABEL TEXT="Teams" FONT="Arial" SIZE="9"
                FONTCOLOR="16777215" STYLE="1" LINEPATTERN="0"
                FILLPATTERN="0" WIDTH="121" HEIGHT="22" ROW="115"
                COLUMN="406"/>

        </LOOKGRAPHIC>

        <INFOITEM XMLID="firefox:#3402" NAME="SEC Reports"
        DESCRIPTION="" SOURCEREF="D:\FJB\FIREFOX\DOCS\SEC REPORTS
        FOR CISCO.URL" CURRENTDIR="docs" MASTERFILENAME="SEC
        REPORTS FOR CISCO.URL" DOCTYPE="2" TYPE="1" OWNER="Javier
        Betancourt" PUBLISHER="Javier Betancourt" DATE="-1.#QNAN"
        PUBLICATIONNUMBER="1"/>

</FACE>

<FACE XMLID="firefox:#166" NAME="Quality" DESCRIPTION=""
NAVIGATIONMODE="1" SPECIALTYPE="1" ASPECTTYPE="1"
BACKGROUNDCOLOR="16777215">

        <LOOKGRAPHIC ZINDEX="4" TYPE="6" CURRENTDIR="\_APIgraphic"
        ORIGINALREF="d:\Program Files\FTC\ActiveProject
```

```
                        Server\Utility\firefox\project\XMLEXPORT\_APIgraphic\#166.b
                        mp" FILENAME="#166.bmp" WIDTH="127" HEIGHT="36" ROW="146"
                        COLUMN="405">

                                <LABEL TEXT="Quality" FONT="Arial" SIZE="9"
                                FONTCOLOR="16777215" STYLE="1" LINEPATTERN="0"
                                FILLPATTERN="0" WIDTH="121" HEIGHT="22" ROW="149"
                                COLUMN="406"/>

                        </LOOKGRAPHIC>

                </FACE>

                <FACE XMLID="firefox:#174" NAME="Other" DESCRIPTION=""
                NAVIGATIONMODE="1" SPECIALTYPE="1" ASPECTTYPE="1"
                BACKGROUNDCOLOR="16777215">

                        <LOOKGRAPHIC ZINDEX="5" TYPE="6" CURRENTDIR="\_APIgraphic"
                        ORIGINALREF="d:\Program Files\FTC\ActiveProject
                        Server\Utility\firefox\project\XMLEXPORT\_APIgraphic\#174.b
                        mp" FILENAME="#174.bmp" WIDTH="127" HEIGHT="36" ROW="180"
                        COLUMN="405">

                                <LABEL TEXT="Other" FONT="Arial" SIZE="9"
                                FONTCOLOR="16777215" STYLE="1" LINEPATTERN="0"
                                FILLPATTERN="0" WIDTH="121" HEIGHT="22" ROW="183"
                                COLUMN="406"/>

                        </LOOKGRAPHIC>

                </FACE>

        </FACE>

        <FACE XMLID="FTC501" NAME="Team" NAVIGATIONMODE="4" SPECIALTYPE="1"
        ASPECTTYPE="32">

                <VIEWER NAME="cdavies"/>

                <VIEWER NAME="btrexler"/>

                <VIEWER NAME="pames"/>

        </FACE>

</PROJECT>
```

ASSEMBLY

```
<?xml version="1.0"?>

<!--Assembly Publishing XML-->

<FACE ID="1" NAME="Sliding Assembly" DESCRIPTION="SolidWorks Assembly"
NAVIGATIONMODE="2" SPECIALTYPE="4">

        <INFOITEM NAME="Sliding Assembly Bundle" DESCRIPTION="SolidWorks
        Assembly" DOCTYPE="3" TYPE="1" SOURCEREF="C:\Program
        Files\SolidWorks98plus\SAMPLES\EXAMPLES\Dial Caliper\Sliding
        Assembly.SLDASM" MASTERFILENAME="Sliding Assembly.SLDASM">

                <CUSTOMPROP NAME="XMLRef" VALUE="Sliding Assembly"
                DESCRIPTION="Unique name for republishing" TYPE="4"/>
```

```xml
        <DEPENDENCY FILENAME="D:\Program
        Files\SolidWorks98plus\samples\examples\Dial Caliper\Depth
        Bar.SLDPRT"/>

        <DEPENDENCY FILENAME="D:\Program
        Files\SolidWorks98plus\samples\examples\Dial Caliper\Face
        Plate.SLDPRT"/>

        <DEPENDENCY FILENAME="D:\Program
        Files\SolidWorks98plus\samples\examples\Dial Caliper\Dial Lock
        Clamp.SLDPRT"/>
    </INFOITEM>

    <CUSTOMPROP NAME="XMLRef" VALUE="Sliding Assembly" DESCRIPTION="Unique
    name for republishing" TYPE="4"/>

    <LOOKGRAPHIC FILENAME="Sliding Assembly.SLDASM" ORIGINALREF="C:\Program
    Files\SolidWorks98plus\SAMPLES\EXAMPLES\Dial Caliper\Sliding
    Assembly.SLDASM"/>

    <FACE ID="2" NAME="Depth Bar" DESCRIPTION="SolidWorks Part"
    NAVIGATIONMODE="1" SPECIALTYPE="1">

        <INFOITEM NAME="Depth Bar:SLDPRT" DESCRIPTION="SolidWorks Part"
        DOCTYPE="2" TYPE="1" SOURCEREF="D:\Program
        Files\SolidWorks98plus\samples\examples\Dial Caliper\Depth
        Bar.SLDPRT" MASTERFILENAME="Depth Bar.SLDPRT">

            <CUSTOMPROP NAME="XMLRef" VALUE="Depth Bar"
            DESCRIPTION="Unique name for republishing" TYPE="4"/>

        </INFOITEM>

        <CUSTOMPROP NAME="XMLRef" VALUE="Depth Bar" DESCRIPTION="Unique
        name for republishing" TYPE="4"/>

        <LOOKGRAPHIC FILENAME="Depth Bar.SLDPRT" ORIGINALREF="D:\Program
        Files\SolidWorks98plus\samples\examples\Dial Caliper\Depth
        Bar.SLDPRT"/>

    </FACE>

    <FACE ID="3" NAME="Face Plate" DESCRIPTION="SolidWorks Part"
    NAVIGATIONMODE="1" SPECIALTYPE="1">

        <INFOITEM NAME="Face Plate:SLDPRT" DESCRIPTION="SolidWorks Part"
        DOCTYPE="2" TYPE="1" SOURCEREF="D:\Program
        Files\SolidWorks98plus\samples\examples\Dial Caliper\Face
        Plate.SLDPRT" MASTERFILENAME="Face Plate.SLDPRT">

            <CUSTOMPROP NAME="XMLRef" VALUE="Face Plate"
            DESCRIPTION="Unique name for republishing" TYPE="4"/>

        </INFOITEM>
        <CUSTOMPROP NAME="XMLRef" VALUE="Face Plate" DESCRIPTION="Unique
        name for republishing" TYPE="4"/>

        <LOOKGRAPHIC FILENAME="Face Plate.SLDPRT" ORIGINALREF="D:\Program
        Files\SolidWorks98plus\samples\examples\Dial Caliper\Face
        Plate.SLDPRT"/>

    </FACE>

</FACE>
```

CREATING AND INITALIZING AN XML FILE

```
#include "FtcXMLInclude.h" // element and attribute names, enumerated types


. . .


CoInitialize(NULL); // called during application startup


. . .


// create XML parser
IXMLDOMDocumentPtr XMLDoc; // see MSDN library for full definition
HRESULT hr = XMLDoc.CreateInstance("Microsoft.XMLDOM");
if(FAILED(hr)) {
       return;
}

// initialize XML document
GetXMLDoc()->preserveWhiteSpace = _variant_t(true);

// set version info
IXMLDOMProcessingInstructionPtr version =
       XMLDoc->createProcessingInstruction(_bstr_t(_T("xml")),
                           _bstr_t(_T(" version=\"1.0\"")));
XMLDoc->appendChild(version);

// set comment on origin
IXMLDOMCommentPtr commentNode = XMLDoc->createComment(_bstr_t(comment));
XMLDoc->appendChild(commentNode);

// create root node (PROJECT)
IXMLDOMNodePtr projNode = XMLDoc->createElement(_bstr_t(FD_XMLTAG_PROJECT));
XMLDoc->appendChild(projNode);

// create face node for project
IXMLDOMNodePtr faceNode = XMLDoc->createElement(_bstr_t(FD_XMLTAG_FACE));
projNode->appendChild(faceNode);

// set the name attribute for the new face
IXMLDOMAttributePtr attribute = XMLDoc->createAttribute(FD_XMLTAG_NAME);
attribute->Putvalue(_variant_t(_T("First Face")));
faceNode->attributes->setNamedItem(attribute);

// save xml document
XMLDoc->save(_T("c:\\temp\\mydoc.xml"));


. . .
CoUninitialize(); // called during application termination
```

SUMMITTING AN XML FILE TO THE API FROM SERVER

```
#include "FtcXMLInclude.h" // element and attribute names, enumerated types


. . .


CoInitialize(NULL); // called during application startup


. . .


// instantiate Authoring Engine
IAuthoringEnginePtr AE;
```

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```
HRESULT hr = AE.CreateInstance(_T("ActiveProject.AuthoringEngine.1"));
try {
        // initialize AE on server
        AE->Init(_bstr_t(_T("")),_variant_t((short)FD_AEUseCollaborationServer));

        // log in as NT administrator to first project area of server
        // (collaboration manager and log in beyond the scope of this code)
        AE->CollaborationManager->Login(_bstr_t(_T("")),
                            _bstr_t(_T("")),(short)0,(short)1);

        // set values for API call
        _bstr_t target; // assuming a project so leave blank
        IVariantDictPtr parameters; // create a parameters options list
        HRESULT hr = parameters.CreateInstance(
                            _T("ActiveProject.VariantDict.1"));
        if(FAILED(hr))
              return;
        // set flag to generate web site after creating project
        parameters->Add(_bstr_t(_T("REGENWEBSITE")),_variant_t(_T("1")));

        // submit XML file to API
        AE->NewFrom(_variant_t(_T("c:\\temp\\mydoc.xml")),
                    _variant_t(parameters.GetInterfacePtr()),
                    target,
                    FD_CpyPreserveXMLSourceDirectory);
}
catch(...) {
}
```

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